

## REMARKS

### Claim Changes

Claim 1 is amended to more clearly recite the claimed invention. Support for the changes can be found on page 8, paragraphs [0023] to [0025]. Thus, no new matter is added.

Claims 8-17 have been cancelled without prejudice or disclaimer.

### Objection to the Claims

In response to the objection to claim 1 for informalities, Applicant has deleted the phrase “subsequent to issuing the plurality of random challenges to the electronic device and receiving the plurality of responses from the electronic device” for clarity as requested.

### Rejection of Claims 1-2, 4-11, and 13 under 35 U.S.C. § 103(a) as being unpatentable over US 2003/0028763 (Malinen) and US 5,668,875 (Brown) in view of US 2003/0233546 (Blom)

The rejection of claims 8-11 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Malinen in view of Brown and Blom is moot in view of the cancellation of claims 8-11 and 13.

Applicant has amended the claims to clarify the invention. Applicant therefore respectfully requests reconsideration of the rejection of claims 1-2 and 4-7 under 35 U.S.C. § 103(a) as being unpatentable over Malinen in view of Brown and Blom as herein amended.

Applicant respectfully submits that the combination of Malinen, Brown, and Blom does not teach or suggest all the claim limitations as set forth in independent claim 1, as amended. For example, independent claim 1 recites “obtaining from the authenticating agent, by the service provider, one of the challenge response pairs associated with the electronic device,” “communicating, by the service provider, a challenge portion of the challenge response pair to the electronic device,” “receiving, by the service provider, from the electronic device a response to the challenge portion,” and “comparing, by the service provider, the response to a response portion of the challenge response pair” which are not taught or suggested in the combination of Malinen, Brown, and Blom.

Applicant respectfully submits that claim 1 describes issuing some challenges by an authenticating agent, receiving corresponding responses by the authenticating agent, where each challenge and corresponding response is called a “challenge response pair.” Applicant’s claim 1

further describes obtaining these “challenge response pairs” from the authenticating agent, by a service provider and using them, by the service provider, to authenticate an electronic device. By following the method in a particular chronological order, the Applicant derives a new and unexpected benefit. Applicant’s Original Specification on page 7, para [0020] illustrates the conventional authentication process and page 7, para [0021] explicitly states that with Applicant’s invention “it is possible to authenticate someone without knowing the secret key.” Therefore, the service provider authenticates the electronic device without knowing the secret keys. The service provider uses the “challenge response” pair to authenticate.

Malinen is directed towards a method for three-party authentication and authorization. Malinen authorizer generates a challenge using the identity and sends it to the client. In return, the client generates a response and sends it back to the authorizer. The authorizer compares the challenge to the response to authenticate the client. When the authorizer determines that the client is authentic, it notifies a service provider of a session key with which it may communicate with the client. See Malinen, paragraphs [0011] and [0070]-[0071]. Malinen does not show or suggest that the service provider obtains the challenge response pair from the authorizer and uses the challenge portion of the challenge response pair to authenticate the client, as described by Applicant’s claim 1.

Brown is directed towards a method for authenticating a roaming subscriber. In Brown, when a subscriber receives a challenge while in a visited system, it converts the challenge into a format compatible with its home system authentication protocol, and processes the converted challenge with the subscriber’s secret key and authentication algorithm into an authentication response. Brown’s subscriber further converts the authentication response in a form compatible with the local authentication protocol, and transmits to the visited system. The visited system then forwards the challenge and response to the subscriber’s home system for similar conversion and processing. The home system compares the subscriber’s response the home system generated response and sends the result to the visited system. See Brown col. 10 line 64 to col. 11, line 14 and col. 6, lines 10-64. Brown also does not show or suggest that the home system obtains the challenge response pair from the visited network and uses the challenge portion of the obtained challenge response pair to challenge and authenticate the subscriber unit, as described in Applicant’s claim 1.

Blom is directed towards a challenge-response authentication procedure that includes masking of the expected response generated by an authentication center. The intermediate party also receives a user response from the user and generates a masked user response as the authentication center. In order to authenticate the user, the intermediate party then verifies that the masked user response corresponds to the masked expected response received from the authentication center. See Blom Abstract. Blom also does not show or suggest “communicating, by the service provider, a challenge portion of the challenge response pair to the electronic device,” and “receiving, by the service provider, from the electronic device a response to the challenge portion,” as recited by Applicant’s claim 1.

For the above reasons, Applicant submits that independent claim 1 is not obvious in view of the combination of Malinen, Brown, or Blom, and therefore the rejection of claim 1 under 35 USC 103(a) should be withdrawn. Applicant requests that claim 1 now be passed to allowance.

Dependent claims 2 and 4-7 depend from, and include all the limitations of independent claim 1. Therefore, Applicant respectfully requests the reconsideration of dependent claims 2 and 4-7 and requests withdrawal of the rejection.

Rejection of Claims 14-17 under 35 U.S.C. § 103(a) as being unpatentable over US 2003/0028763 (Malinen) and US 5,668,875 (Brown) in view of WO 00/02406 (Ekberg) and further in view of US 2003/0233546 (Blom)

The rejection of claims 14-17 under 35 U.S.C. § 103(a) as being unpatentable over Malinen in view of Brown, Ekberg, and Blom is moot in view of the cancellation of claims 14-17.

Rejection of Claims 1-2, 4-11, and 13 under 35 U.S.C. § 103(a) as being unpatentable over US 2003/0028763 (Malinen) and US 2005/0113067 (Marcovici) in view of US 2003/0233546 (Blom)

The rejection of claims 8-11 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Malinen in view of Marcovici and Blom is moot in view of the cancellation of claims 8-11 and 13.

Applicant has amended the claims to clarify the invention. Applicant therefore respectfully requests reconsideration of the rejection of claims 1-2 and 4-7 under 35 U.S.C. § 103(a) as being unpatentable over Malinen in view of Brown and Blom as herein amended.

Malinen and Blom have been previously discussed and it has been reiterated that they do not show or suggest the limitations of independent claim 1. Marcovici is directed towards a method for determining a private key for a first network based on a security value associated with a second network. Marcovici further mentions establishing a plurality of sessions including sending challenges and receiving responses between a mobile terminal and the first network based on the private key. See Marcovici Abstract and paragraph [0036]. But Marcovici also does not show or suggest “obtaining from the authenticating agent, by the service provider, one of the challenge response pairs associated with the electronic device,” “communicating, by the service provider, a challenge portion of the challenge response pair to the electronic device,” “receiving, by the service provider, from the electronic device a response to the challenge portion,” and “comparing, by the service provider, the response to a response portion of the challenge response pair” as recited by independent claim 1, as amended.

For the above reasons, Applicant submits that independent claim 1 is not obvious in view of the combination of Malinen, Marcovici, or Blom, and therefore the rejection of claim 1 under 35 USC 103(a) should be withdrawn. Applicant requests that claim 1 now be passed to allowance.

Dependent claims 2 and 4-7 depend from, and include all the limitations of independent claim 1. Therefore, Applicant respectfully requests the reconsideration of dependent claims 2 and 4-7 and requests withdrawal of the rejection.

Rejection of Claims 14-17 under 35 U.S.C. § 103(a) as being unpatentable over US 2003/0028763 (Malinen) and US 2005/0113067 (Marcovici) in view of WO 00/02406 (Ekberg) and further in view of US 2003/0233546 (Blom)

The rejection of claims 14-17 under 35 U.S.C. § 103(a) as being unpatentable over Malinen in view of Brown, Ekberg, and Blom is moot in view of the cancelation of claims 14-17.

### Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Such action is earnestly solicited by the Applicant. Should the Examiner have any questions, comments, or suggestions, the Examiner is invited to contact the Applicant's attorney or agent at the telephone number indicated below.

The Commissioner is hereby authorized to deduct any fees arising as a result of this response, including the fee for the one-month Petition for Extension of Time, and any other communication from, or to credit any overpayments to, Deposit Account No. 50-2117, Motorola, Inc.

Respectfully submitted,

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